



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/610,500	06/30/2003	Jheroen P. Dorenbosch	CE11261N	5357
23330	7590	04/05/2006	EXAMINER	
MOTOROLA, INC. LAW DEPARTMENT 1303 E. ALGONQUIN ROAD SCHAUMBURG, IL 60196			PHUNKULH, BOB A	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/610,500		DORENBOSCH, JHEROEN P.	
	Examiner		Art Unit	
	Bob A. Phunkulh		2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The finality of the previous Office Action mailed 11/10/2005 is hereby withdrawn.

This communication is in response to applicant's 01/27/2006 amendment(s)/response(s) in the application of **DORENBOSCH** for "**FAST HANDOVER THROUGH PROACTIVE REGISTRATION**" filed 06/30/2003. The amendments/response to the claims have been entered. No claims have been canceled. No claims have been added. Claims 1-25 are now pending.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed subject matter "software program" is directed toward a software program per se. Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process. In context, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Claim Rejections - 35 USC § 103

Art Unit: 2616

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Bridgelall* (US Patent Application Publication No. 2002/0085516 A1) in view of *McConnell et al.* (US 6,970,719), hereinafter *McConnell*.

Regarding to Claim 1: *Bridgelall* discloses a communications unit (see Fig.9) comprising:

a receiving device for receiving signals from a first and a second wireless communications network (see Fig. 9: devices 902 and 924 for receiving/transmitting from/to wireless local area network (WLAN) and wireless wide area network (WWAN), respectively; hence, a receiving device for receiving signals from a first and a second wireless communications network);

a controller, coupled to and controlling the receiving device, for detecting a condition indicative of initiating communication over the first wireless communications network (see Fig. 9: 922; and Paras. [0052] - [0053] in page 6: the controller 922 manages the flow of control signaling and data traffic between the controller 922 and either the WLAN (first com. network) or WWAN (the second com. network)); and

a transmitting device, coupled to and controlled by the controller, and cooperatively operating with the receiving device and the controller for facilitating the communication over the first wireless communications network (see Fig.9: devices 902

Art Unit: 2616

and 924 for transmitting/receiving to/from WLAN and WWAN, respectively; hence, a transmitting device coupled to and controlled by the controller, and cooperatively operating with the receiving device and the controller for facilitating the communication over the first wireless communications network) and for facilitating registration with the second wireless communications network when the controller detects the condition (see Fig. II: the arrow connected from WWAN signaling to WLAN signaling; and Paras.

[0062]-[0067] in page 7: for seamless vertical roaming to be accomplished, simultaneous signaling in one network must be feasible between a full traffic connection in the other network; hence, facilitating registration with the second wireless communications network when the controller detects the condition).

Bridgelall fails to disclose the communication unit registering concurrently or simultaneously to the first and second communication networks based on a condition indicative of initiating communication.

McConnell, on the other hand, discloses the handset unit 64 registering concurrently or simultaneously (REGNOT 402 and REGNOT 404) to the first and second communication networks (private and public network) based on a condition indicative (handset powers up signal 400, of initiating communication (see figure 7).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made includes the teaching of *McConnell* in the system taught by *Bridgelall* especially registering concurrently or simultaneously to the first and second communication networks in order to provides a user with a different set of services for

Art Unit: 2616

personal calls and business calls or avoiding drop-call during handoff by pre-registering with the second network at the initiation of a call.

Regarding to Claim 2, *Bridgelall* further discloses the receiving device is further for receiving a beacon signal (see Fig. 6: step 604 or step 607);

wherein the controller is further for detecting beacon information included with the beacon signal, the beacon information indicative of a location of the communications unit (see Para. [0044] in page S: the beacons announce identity and location information that the mobile will need to locate a network); and

wherein the registration with the second wireless communications network is facilitated when the controller detects both the condition and the beacon information (see Fig. 11: the arrow pointed to VoIP Traffic (hence, a call initiation), and the signaling arrow pointed from WLAN signaling to WWAN signaling (hence, beacon signal)).

Regarding to Claim 3, *Bridgelall* further discloses the controller is further for determining a coverage quality corresponding to the first wireless communications network (see Para. [0087] in page 9), and

wherein the registration with the second wireless communications network is facilitated when the controller detects the condition and when the controller determines that the coverage quality satisfies a predetermined threshold (see Para. [0075] in page 8).

Regarding to Claim 4, *Bridgelall* further discloses the controller is further for determining a coverage quality corresponding to the second wireless communications network (see Para. [0076] in page 8); and wherein the registration with the second wireless communications network is facilitated when the controller detects the condition and when the controller determines that the coverage quality satisfies a predetermined threshold (see Para. [0075] in page 8).

Regarding to Claim 5, *Bridgelall* further discloses the controller is further for detecting an other condition indicative of one of a completion of the communication over the first wireless communications network, a completion of a communication over the second wireless communications network, and when the communication was never initiated (see the last Para. [0041]: a call release procedure), and

wherein the controller cooperatively with the transmitting device and the receiving device facilitates deregistration from at least one of the first wireless communications network and the second wireless communications network when the controller detects the other condition indicative of the completion of the communication (see the last sentence in Para. [0041]: A transmission of channel release message terminates the physical connection and the physical Radio link terminates; hence, the controller facilitates deregistration from at least one of the two communications networks).

Regarding to Claim 6, *Bridgelall* further discloses the controller is further for detecting a location of the communications unit (see Para. (0044] in page 5: the

beacons announce identity and location information that the mobile will need to locate a network), and wherein the registration with the second wireless communications network is facilitated when the controller detects the condition and that the location of the communications unit is within a first predetermined range (see Para [0086]: real time location system using angle of arrival estimates and triangulation for determining a position of an object (hence, a first predetermined range of the communications unit 102 can be detected).

Regarding to Claim 7, *Bridgelall* further discloses the controller is further for detecting if the location of the communications unit is within a second predetermined range, and wherein the registration with the second wireless communications network is facilitated when the controller detects the condition and that the location of the communications unit has changed from the first predetermined range to the second predetermined range within a predetermined time period (see Para [00751]).

Regarding to Claim 8, *Bridgelall* further discloses the communication unit further comprising a motion detector in communication with the controller for detecting a motion of the communications unit, and wherein the registration with the second wireless communications network is facilitated when the controller detects the condition and that the motion of the communications unit exceeds a predetermined motion threshold (see Para [0075]: when the terminal 1301 senses a gradual transition to high WLAN packet error rates, frequent rates scale back or a consistent signal strength degradation

Art Unit: 2616

(hence, the controller detects the condition and that the motion of the communications unit exceeds a predetermined motion threshold)).

Regarding to Claim 9, *Bridgelall* further discloses the condition comprises at least one of: accessing a communications unit phone book; dialing a number; opening a hinged cover of the communications unit; and entering a key for access to the communications unit (see Para. [0041]: call origination).

Regarding to Claim 10, *Bridgelall* further discloses the first wireless communications network comprises a first one of a wireless local area network (WLAN) and a wireless wide area network (WAN) and wherein the second wireless communications network comprises a second one of the WLAN and the WAN (see Fig. 1: WLAN 104 and WWAN 102; and Fig. 2: 201 and 205).

Regarding to Claims 16-20 and 22-25, these claims are rejected for the same reasons as claims 1-8 and 10, respectively because the apparatus in the communications unit cited in the claims 1-8 and 10 can be used to practice the method steps of the claims 16-20 and 22-25.

Regarding to Claim 21, *Bridgelall* further discloses the operating exclusively on the first wireless communications network further comprises starting up a first stack

Art Unit: 2616

corresponding to the first wireless communications network (see Fig. 10: WLAN/802. 11 protocol stack (a first stack));

wherein the registering with the second wireless communications network further comprises starting up a second stack corresponding to the second wireless communications . network (see Fig. 10: GSMIGPRS protocol stack (a second stack)); and wherein the de-registering from the at least one of the first and the second wireless communications networks comprises dropping; at least one of the first and the second stacks (see Para. [0041]: a transmission of channel release message terminates the physical connection and the physical radio link terminates; hence, the at least one of the first and the second networks dropping at least one of the first and the second stacks).

Regarding to Claims 11-15: the combination of *Bridgelall-McConnell* discloses a method for facilitating handover of a link with a communications unit between wireless communications networks employing different technologies as recited in claims 16-20. This method can be applied to reject these claims for the same reasons as that of claims 16-20 because it is well known in the art that method steps can be programmed to automate a process. The resulting program is considered. as firmware that the apparatus uses to perform the method steps. Furthermore, *Bridgelall* also discloses such a program (see Para. [0003]: program products).

Conclusion

Art Unit: 2616

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal Service (USPS) only:

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

The following address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand Delivery, etc.) as follow:

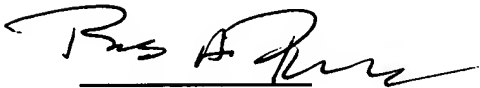
U.S. Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Wellington Chin**, can be reach on **(571) 272-3134**. The fax phone number for this group is **(571) 273-8300**.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bob A. Phunkulh
Primary Examiner
TC 2600
Technology Division 2616
April 04, 2006

BOB PHUNKULH
PRIMARY EXAMINER